

Patent claims

1. Immunoadsorber for use in sepsis therapy in which there exist carrier materials of organic or synthetic polymers with bound poly or monoclonal antibodies aimed against the complement factors C3a and/or C5a and against lipopolysaccharides (LPS) and, if need be, with antibodies aimed against further sepsis mediators.
2. Immunoadsorber according to Claim 1, wherein the antibodies are polyclonal antibodies.
3. Immunoadsorber according to Claim 2, wherein the antibodies are avian antibodies of type IgY.
4. Immunoadsorber according to Claims 1 to 3, wherein further antibodies against sepsis mediators are contained as a function of the state of the dysregulation.
5. Immunoadsorber according to Claims 1 and 4, wherein these antibodies are aimed against TNF, IL1, IL6, IL8 and/or IL10.
6. Immunoadsorber according to Claim 1, wherein the bound antibodies are aimed against at least one of the following peptide sequences of the complement factors C3a and C5a

C3a: NH₂-KCCEDEGMRQNPMLR-COOH
NH₂-RFSCQRRTRFISL-COOH
NH₂-ITELRRQHARAS-COOH

C5a: NH₂-QADYKDDDDKLPAE-COOH
NH₂-DDKLPAEGLDIENS-COOH

7. Immunoadsorber according to Claim 5, wherein the bound antibodies are aimed against at least one of the following peptide sequences of the interleukins 1 α and 1 β

IL1 α : NH₂-NCYSENEEDSSSID-COOH

NH₂-GAYKSSKDDAKIT-COOH

NH₂-WETHGKTYFTS-COOH

IL1 β : NH₂-RISDHYSKGFRQA-COOH

NH₂-VQGEESNDKIPVA-COOH

NH₂-ESVDPKNYPKKMEKRF-COOH

8. Immunoadsorber according to Claim 5, wherein the bound antibodies are aimed against at least one of the following peptide sequences of interleukin 6

IL6: NH₂-APHRQPLTSSERIDKQI-COOH

NH₂-QNRFESSEEQARA-COOH

NH₂-AITTPDPTTNAS-COOH

9. Immunoadsorber according to Claim 5, wherein the bound antibodies are aimed against at least one of the following peptide sequences of interleukin 10

IL10: NH₂-SPGQGTQSENSCT-COOH

NH₂-QMKDQLDNLLKES-CCOH

NH₂-MPQAENQDPDIKA-COOH

NH₂-LPCENKS KAVEQ-COOH

10. Immunoadsorber according to Claim 5, wherein the bound antibodies are aimed against at least one of the following peptide sequences

TNF α : NH₂-VRSSSRTPSDKPVA-COOH

NH₂-KSPCQRETPEGAEAKPW-COOH

11. Immunoadsorber according to Claims 1 to 10, wherein the organic or synthetic carrier material comprises membranes of particles of polystyrenes, carbohydrates such as cellulose or agarose derivatives, or acrylates.

12. Immunoadsorber according to Claims 1 to 11, wherein the specific antibodies are covalently bound to the membranes or particles.

13. Immunoadsorber according to Claims 1 to 11, wherein the antibodies are fixed to the carrier materials via spacers or linkers.

14. Method for the production of immunoadsorbers according to Claims 1 to 13, wherein antibodies aimed against C3a and/or C5a and LPS and, if need be, against further sepsis mediators are covalently or adsorptively coupled to carrier materials of organic or synthetic polymers.

15. Method according to Claim 14, wherein the antibodies are produced by immunisation preferably of small mammals, such as mice, rats or rabbit, or of birds, such as chickens, with the corresponding antigens.
16. Use of immunoadsorbers according to Claims 1 to 13 as an effective component of an appliance for the removal of complement factors, LPS and, if need be, further mediators in a patient-specific combination of body fluids.
17. Use according to Claim 16, wherein the immunoadsorbers are used for plasma-apherese in patients with sepsis or septic shock as well as other diseases connected with inflammations.

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